Class: - BA-1st Sem   Subjects: - Programming in C

Month	Week	Topics
Aug -2023	First Week	Introduction to C Programming: History of C, Character Set, Identifiers and Keywords, Constants, Types of C Constants, Rules for Constructing Integer, Real and character Constants, Variables,
	Second Week	Data Types, rules for constructing variables. Input/output: Unformatted & formatted I/O function, Input functions: scanf(), getch(), getche(), getchar(), gets(); output functions: printf(),putch(), putchar(), puts().
	Third Week	Operators and Expressions: Arithmetic, relational, logical, bitwise, unary, assignment, conditional operators and special operators,
	Forth Week	Type Conversion in Assignments, Hierarchy of Operations, Structure of a C program.
Sept-2023	First Week	Decision Control Structure: Decision making Decision making with IF statement, IF-ELSE statement, Nested IF statement, ELSE-IF ladder
	Second Week	Loop Control Structure: While and do-while, for loop and Nested for loop,Case Control Structure:
	Third Week	Decision using switch; goto, break and continue statements.
	Forth Week	Functions: Library functions and user defined functions, Global and Local variables, Function Declaration, Calling and definition of function, Methods of parameter passing to functions, recursion, Storage Classes in C.
Oct-2023	First Week	Arrays: Introduction, Array declaration, Accessing values in an array, Initializing values in an array, Single and Two Dimensional Arrays, Initializing a 2-Dimensional Array, Passing array elements to a function: Call by value and call by reference,
	Second Week	Arrays of characters, Insertion and deletion operations, Searching the elements in an array, Using matrices in arrays, Passing an Entire Array to a Function.
	Third Week	Pointers: Pointer declaration, Address operator "&", Indirection operator "*", Pointer and arrays, Pointers and 2-Dimensional Arrays, Pointer to an Array,
	Forth Week	Passing 2-D array to a Function, Array of Pointers. Dynamic Memory Allocation: malloc(), calloc(), realloc(), free() functions.
Nov-2023	First Week	String Manipulation in C:Declaring and Initializing string variables, Reading and writing strings, StringHandling functions (strlen(), strcpy(), strcmp(), strcat(), strrev()).
	Second Week	Structures and Unions: Declaration of structures, Structure Initialization, Accessing structure members, Arraysof structure, Nested structures, Structure with pointers, Union. Files in C: Introduction, Opening and Closing files, Basic I/O operation on files.

Class: - BA-1ˢᵗ Sem

Subjects: - Fundaments in Computers

Month	Week	Topics
Aug -2023	First Week	Introduction to Computers, Definition, components of Computer, Components of Computer, Characteristics of computers, Input Devices introduction, Keyboard, Mouse, Joystick, Track ball, light Pen, OMR, OCR, MICR, Scanners, Web Camera etc.,
	Second Week	Output Device introduction, Printer introduction,Character Printers, Line printers, Page printers, Plotters, Monitor
	Third Week	Introduction to memory, Memory Hierarchy, Types of Main memory, RAM, ROM, Cache Memory,
	Forth Week	Introduction to secondary storage devices, Magnetic disk, Magnetic Tape, Floppy Disk. Optical Disk, CD, DVD
Sept-2023	First Week	Introduction to MS-Word, MS-Word window, Application software, Utility Software.Create and save a file, save and save-as, Editing a document, Introduction to Programming Languages, Machine Language, Assembly Language, High level Language.
	Second Week	Table in Ms Word.Compiler and Interpreter, Introduction to Operating System, Functions of OS Formatting a document, , Macro, Mail Merge
	Third Week	Introduction to MS-Excel and its window, Data types, Creating and saving a workbook, Operating systems for Tabs, mobile phones,
	Forth Week	Protecting a workbook, Editing worksheet, autofill, Cut, Copy, and Paste, Formatting a worksheet., Formatting a Number, Creating Charts, Built-in- Functions, Data Tables, Macro, etc
Oct-2023	First Week	Creating a new presentation, Different views of Powerpoint, Insert, cut, paste, move, copy, delete slide, Creating a new presentation using built-in template Adding Picture, shapes , audio, video etc into slides, Applying Animation and Slide show
	Second Week	Introduction to Computer Software, Types of Computer Software, System Software.
	Third Week	Operating System, Types of Operating System, Real time applications, Batch Operating System
	Forth Week	Multiprogramming Operating System, Time Sharing Operating System, Multiprocessing Operating System.
Nov-2023	First Week	Internet basics, web browsers, web servers, HTTPs, HTTPs, IP, Email basics,
	Second Week	computer network, Types of computer networks, Transmission media, Network topologies, Cloud computing

Class- BA-II (3ʳᵈ Sem)   Paper: DBMS

Month	Week	Topics
Aug -2023	First Week	A Historical perspective, File Systems vs. DBMS, Characteristics of the Data Base Approach
	Second Week	Abstraction and Data Integration, Database users, Advantages and Disadvantages of DBMS, DBMS architecture
	Third Week	Data Models, Schemas and Instances, Data Independence.**Entity Relationship (ER) Model:** Basic Concepts-Entity,
	Forth Week	Attributes, Types of Attributes, Entity set and Keys;elationships-Relationship set, Degree ofRelationship,
Sept-2023	First Week	Mapping Cardinalities. ER diagram representation-Representation of Entity,
	Second Week	Attributes and Relationship. Binary Representation and Cardinality, Participation Constraints.
	Third Week	**Relational Model :** Relational model concepts (Tables, Tuple, Relation instance, Relation schema, Relation key, Attribute domain),
	Forth Week	Constraints- Key constraints**,** Domain constraints**,** Referential integrity constraints; Relational algebra, Basic operations: Select, Project, Union, Set difference, Cartesian product, Rename.
Oct-2023	First Week	**SQL:** Why SQL**,** Data Types; DDL-Create, Alter and Drop table Commands.
	Second Week	DML- SELECT/ FROM/ WHERE, INSERT INTO/ VALUES,
	Third Week	UPDATE /SET/ WHERE, DELETE
	Forth Week	Commands. UNION [ALL], INTERSECTION and MINUS Operators.
Nov-2023	First Week	**Relational Database design:** Mapping ER model to relational database, functional dependencies, Lossless decomposition,
	Second Week	Desirable properties of decomposition, Normal forms (1 NF, 2 NF, 3 NF and BCNF).
	Third Week	Revision of the syllabus

Class- BA-II (3rd Sem)   Paper: Operating system

Month	Week	Topics
Aug -2023	First Week	**Structure of Operating Systems:** Layers-MS-DOS Layer Structure,
	Second Week	Traditional UNIX System Structure;
	Third Week	Running Multiple Operating Systems, Running a Virtual Operating System,
	Forth Week	Operating System Modes, System Boot.
Sept-2023	First Week	**Process Management:** Introduction to Process, Attributes of a process,
	Second Week	Process States, Operations on the Process, Process Schedulers,
	Third Week	CPU Scheduling, Scheduling Algorithms, Purpose of a Scheduling algorithms,
	Forth Week	Introduction to FCFS, Shortest Job First (SJF), Shortest Job First (SJF), Round Robin Scheduling Algorithms.
Oct-2023	First Week	**Memory Management:** Fixed and Dynamic partition, Physical and Logical Address Space,
	Second Week	Page Table, Mapping from page table to main memory, Page Table Entry, Size of the page table, Finding Optimal Page Size.
	Third Week	Virtual Memory Concepts, Advantages and disadvantage of Virtual Memory.
	Forth Week	Segmentation, Translation of Logical address into physical address by segment table, Advantages and disadvantage of Segmentation. Paging VS Segmentation.
Nov-2023	First Week	**File Management:** Attributes of File, Operations on File; File Access Methods- Sequential, Direct and Indexed Access; Directory Structure,
	Second Week	File Systems, File System Structure- different layers; Master Boot Record, Directory Implementation-Linear List and Hash Table; Disk space Allocation Methods- Contiguous Allocation and FAT.
	Third Week	**Shell introduction and Shell Scripting:** What is shell and various type of shell

Department of Computer Science, Govt. College Kheri Chopta, Hisar
Lesson Plan Session 2023-24
Name of Teacher: Dinesh Narwal

Class: BCom-1st Sem   **Paper: Computer Application in Business**

Month	Week	Topics
Aug -2023	First Week	Introduction to Computers, Definition, components of Computer, Components of Computer, Characteristics of computers, Input Devices, Output Devices, Introduction to memory,
	Second Week	Memory Hierarchy, Types of Main memory, RAM, ROM, Cache Memory, Introduction to secondary storage devices, Magnetic disk, Magnetic Tape, Floppy Disk. Optical Disk, CD, DVD, Comparison between different memories.
	Third Week	Start Button, Display Properties, Manage files and folders, Introduction to windows, desktop, icon, My Computer, My Document, Recycle Bin, Introduction to modern CPU and processors, Revision and doubts of students,
	Forth Week	Test, Accessories, Installing/uninstalling a printer and other software
Sept-2023	First Week	Introduction to modern CPU and processors, Introduction to Computer Software, Types of Computer Software,
	Second Week	System Software. Introduction to MS- Word, MS-Word window, Application software, Utility Software.
	Third Week	Create and save a file, save and save-as, Editing a document, Table in Ms Word, Macro, Mail Merge
	Forth Week	Concept of Data and information, Information system, Effects of IT on business, Types of information system : TPS, and MIS
Oct-2023	First Week	Introduction to MS-Excel and its window, Data types, Creating and saving a workbook
	Second Week	Protecting a workbook, Editing worksheet, autofill, Cut, Copy, and Paste,
	Third Week	Formatting a worksheet., Formatting a Number, Creating Charts, Built-in-Functions, Data Tables, Macro, etc.
	Forth Week	Creating a new presentation, Different views of Powerpoint, Insert, cut, paste, move, copy, delete slide, Creating a new presentation using built-in template Adding Picture, shapes , audio, video etc into slides, Applying Animation and Slide show.
Nov-2023	First Week	Introduction to E-Commerce, E-Commerce and WWW, E-Commerce applications, E-Commerce Models B2B, B2C, C2C.
	Second Week	M-Commerce and e-governance: an overview. Online payment system, Payment gateways, Risk management options for e- payment system, Plastic money: Debit and Credit cards and other smart cards, Digital certification and Digital signature.
	Third Week	Revision